portion **88** having two upper aligned jaws **90** and two lower aligned jaws **92**. In use, the two kinks **75** in the levers **74** are respectively aligned between the two pairs of jaws such that closing the jaws by means of a handle **94** flattens kinks **75**, and causes the desired axial movement of the optic **14** in a posterior direction toward the focal plane.

As has been explained above, a resilient biasing force may conveniently be provided by the natural elasticity of the posterior capsule wall **18** and the edge of the lens capsule **19**. In this case, for those embodiments of the invention which require the restoring force of the posterior wall on the optic, the position of the optic **14** within the lens capsule **16** must be adjusted so that, for correct far vision when the ciliary muscle is completely relaxed, the rear surface of the optic **14** contacts the posterior capsule wall **18**. This too can be provided by the methodology described with respect to FIGS. **13–15**.

In the preferred embodiments described hereinabove, lens assembly **12** is mounted completely within lens capsule **16** and an inward radial resilient biasing force is provided by the inherent elasticity of remaining portions of the lens capsule. However, the lens capsule may be dispensed with for some of these embodiments by providing auxiliary springs which act as tensile elements **96**, as shown in FIGS. **5**, so as restore the optic to its equilibrium position on relaxation of the ciliary muscle, and by attaching or anchoring the lever arms to the ciliary muscle or zonules. The inward radial biasing force may comprise, for example, a tensioned ring attached to the zonules or to the ciliary muscle itself.

The present invention has been. described, generally, for lens implants utilizing rigid optics. Alternative preferred embodiments of the above described embodiments of the invention utilize soft optics which may have a number of advantages over rigid optics. Firstly, the soft optics may be folded during implantation, such that the opening in the anterior wall of the lens capsule may be reduced. Secondly, some of the joints, for example, those which provide flexible joints at the juncture of the linkage arms and the optic or between the fulcrum and the optic, may be dispensed with and their function assumed by a slight bending of the edges of the optic itself.

In general, the materials used in the present invention are similar to those used in the prior art and include nylon and proline for the resilient linkage arms and the flexible elements, polymethylmethacrylate (PMMA) or hydrogel for the rigid optic and silicone for the soft optic. Preferably the rigid linkage arms and other rigid elements are formed of stainless steel wire optionally covered by proline or nylon or other inert material. The surface of all or part of the lens system may be covered with Haperin or other biologically active compound to reduce body rejection of the lens system.

It is to be understood that, during cataract operations, at least part of the anterior capsule wall is usually destroyed and part of the posterior capsule wall may also be damaged. Therefore, the term "posterior capsule wall" as used in the specification and claims embrace also partial capsule walls as appropriate.

I claim:

1. An intraocular lens assembly for implantation in a human eye, said eye including at least a portion of a lens capsule, a ciliary muscle and zonules controlled by the ciliary muscle, the assembly comprising:

an optic having anterior and posterior surfaces;

an at least partial ring adapted to cooperate with the ciliary muscle or the zonules; and

at least two linkage elements, each being pivotably attached to the optic at a first position on the element and being pivotably attached to the at least partial ring at a second position on the element to cause axial movement of the optic in response to movement of the ciliary muscle or the zonules;

and also comprising a generally rigid ring having a diameter greater than that of the optic and less than that of said at least partial ring and wherein the linkage elements are pivotably attached at locations intermediate the ends of the linkage elements onto said rigid ring at pivots located on said rigid ring.

2. An intraocular lens assembly according to claim **1** wherein the pivots comprise flexible portions in said otherwise rigid ring.

3. An intraocular lens assembly according to claim **2**, wherein:

the rigid ring is formed of at least two rigid sections interconnected by a biologically inert sleeve so as to allow twisting of respective portions of the sleeve intermediate the rigid sections, and

said respective portions of the sleeve serve as fulcrums.

4. An intraocular lens assembly according to claim **3**, wherein said rigid ring is provided with one or more initial kinks which can be at least partially straightened during implantation of the lens assembly in order to adjust the distance of the optic from the rear surface of the eye.

5. An intraocular lens assembly according to claim **3**, wherein at least two optics are commonly coupled to the respective linkage elements.

6. An intraocular lens assembly according to claim **4**, wherein at least two optics are commonly coupled to the respective linkage elements.

7. An intraocular lens assembly according to claim **2**, wherein said rigid is provided with one or more initial kinks which can be at least partially straightened during implantation of the lens assembly in order to adjust the distance of the optic from the rear surface of the eye.

8. An intraocular lens assembly according to claim **7**, wherein at least two optics are commonly coupled to the respective linkage elements.

9. An intraocular lens assembly according to claim **2**, wherein at least two optics are commonly coupled to the respective linkage elements.

10. An intraocular lens assembly according to claim **1**, wherein at least two optics are commonly coupled to the respective linkage elements.

11. An intraocular lens assembly for implantation in a human eye, said eye including at least a portion of a lens capsule, a ciliary muscle and zonules controlled by the ciliary muscle, the assembly comprising:

an optic having anterior and posterior surfaces;

an at least partial ring adapted to cooperate with the ciliary muscle or the zonules; and

at least two linkage elements, each being pivotably attached to the optic at a first position on the element and being pivotably attached to the at least partial ring at a second position on the element to cause axial movement of the optic in response to movement of the ciliary muscle or the zonules;

wherein each of said linkage elements is adapted to apply a resilient bias to maintain the optic at a desired distance from the rear surface of the eye; and

wherein the at least a portion of a lens capsule includes at least a peripheral edge thereof attached to the zonules and wherein the resilient bias is at least partially applied to the edge; and